

# FLORICULTURE

## Purpose

The State Floriculture Contest is designed to stimulate student interest in production and retailing of flowers, plants, and foliage in the secondary agriculture curricula.

## Objectives

Students participating in the State Floriculture Contest should be able to:

- I. Identify floriculture and bedding plants commonly grown in Missouri.
- II. Identify unhealthy plants due to pest, nutritional, mechanical, or chemical injury.
- III. Understand principles of and develop skills underlying propagation, growth requirements, growing techniques, harvesting, marketing, and maintenance of established floriculture plants

## Crosswalk with Show Me Standards

Objectives – Students participating in the Career Development Event should be able to:	Show-Me Standards	
	Knowledge Standards (Content Areas)	Performance Standards (Goals)
1. Identify floriculture and bedding plants commonly grown in Missouri.	MA.1, MA.2	1.9
2. Identify unhealthy plants due to pest, nutritional, mechanical, or chemical injury.	SC.3, SC.5	3.4, 3.6, 3.8
3. Understand principles of and develop skills underlying propagation, growth requirements, growing techniques, harvesting, marketing, and maintenance of established floriculture plants.	FA.1, FA.2	4.3, 4.4, 4.5, 4.7, 4.8

CORRESPONDING SECONDARY AGRICULTURE CURRICULUM			
<b>Course and/or Curriculum:</b>	Greenhouse Operation and Management	<b>Unit(s):</b>	All Units
	Floriculture		All Units

## **Event Format**

The contest will consist of three components: General Knowledge, Identification, and Practicum.

**1. General Knowledge Examination**

- a. This portion of the contest will test the contestants' knowledge and understanding of production and retailing of floriculture crops and the selection, use, care, and culture of these plants in the home environment.
- b. It will consist of 75 questions (25 from *Floristry* and 50 from *Greenhouse Management*) covering the following general topics:
  - (1) Greenhouse design and equipment
  - (2) Basic plant growth and function
  - (3) Plant propagation
  - (4) Plant production technique
  - (5) Diseases and insects
  - (6) Basic business management.

**3. Identification**

- a. Each contestant will be required to identify 60 specimens from the Floriculture Plant Identification List.
- b. Each specimen will be identified by number.
- c. Contestants will need to match the specimen with the correct name on the answer sheet.
- d. Students will be allowed 50 seconds per plant as well as 5 minutes at the end of the rotation to go back and review any plant(s) and bubble their scansheet.
- e. **Duplicate samples may not be used in any identification portion of the event.**

**4. Disorders**

- a. Plant Disorders and Diagnosis - Each contestant will complete this practicum of five stations including diagnosing disorders and selecting the most correct remedy. Students will be allowed 2 minutes per plant disorder, as well as 5 minutes at the end of the rotation to go back and review and bubble their scansheet.

**5. Tool Identification**

- a. Floriculture Tool and Product Identification – Each contestant will identify 25 items selected from the Floriculture/Greenhouse Items list (Student Copy 2). Students will be allowed 50 seconds per tool as well as 5 minutes at the end of the rotation to go back and review any tool(s) and bubble their scansheets.

**Duplicate samples may not be used in any identification portion of the event.**

**6. Practicums**

- a. Pricing a Floral Arrangement-Each contestant will answer 10 multiple choice questions on the pricing of a floral arrangement. Each question will be worth 5 points each. All parts of the cost, including containers, must be given to the contestant. Questions may be asked on floral concepts, cost of parts of the arrangement, or cost of the arrangement as a whole.
  - I. A live arrangement may be used, but each flower to be used in the live arrangement must be on the floriculture identification list.
  - II. A picture of an arrangement may be used, (such as the FTD Book) with or without flowers used in the contest identification list.

- b. Chemical Problem Solving-Each contestant will answer 10 multiple choice questions at five (5) points each. Questions will be based on examples found in the National Pesticide Applicator Certification Core Manual (MX328), Chapter 12 “Calculating Dilutions and Site Size. Questions may be stand alone or progressive in nature. \* “None of the Above” should not be used as a possible multiple choice answer. Questions should reflect the greenhouse or floriculture industry.

### **Event Scoring**

<b>Event</b>	<b>Points</b>	<b>Time</b>	<b>Rotation</b>
General Knowledge (75 questions @ 4 pts each)	300	1 hour	Rotation 1
Identification (60 specimens @ 5 pts each)	300	1 hour	Rotation 2
Plant Disorders & Diagnosis	50	30 minutes	Rotation 3a
Tool Identification	50	30 minutes	Rotation 3b
Pricing a Floral Arrangement Practicum (10 @ 5 points each) & Chemical Problem Solving (10 @ 5 points each)	100	1 hour	Rotation 4
<b>TOTAL</b>	<b>800</b>		

1. Tie scores among teams in all events should be broken using the high individual team member's score. In case the scores are tied, the scores of the second high individual on each team should be used.

### **Event Rules and Regulations**

1. Each team may consist of three or four members. The top three individual scores will make up the team score.
2. Contestants will not be allowed to communicate with anyone other than contest officials while the contest is in progress. Failure to observe this rule may result in elimination from the contest.

## References

Catalogs from mail order seed companies are good sources for information. They can be obtained free of charge from most companies. Farm and garden magazines are full of addresses for these companies in the late winter of every year. Supply catalogs such as: Hummert, Stuppy or similar catalogs can be obtained free of charge or for a minimal fee from most supply companies. Additionally, the National FFA CDE Handbook for Floriculture provides several references that could be utilized in the training of teams.

Greenhouse Operation and Management (Instructor and Student Reference) (2002). Available  
<https://dese.mo.gov/college-career-readiness/career-education/agricultural-education/agricultural-education>

Riley & Shry (8<sup>th</sup> Edition). Introductory Horticulture. Albany, New York:  
<http://www.cengage.com/us/>

Floristry (Instructor and Student Reference) (1996). IML, Available  
<https://dese.mo.gov/college-career-readiness/career-education/agricultural-education/agricultural-education>

National FFA Floriculture CDE Classroom Guide. Available at: <https://wwwffa.org/cde-lde-classroom-resources>

National Pesticide Applicator Certification Core Manual (MX328), ***Appendix C – Conversions & Calculations AND pages 169-171 – Calculating Areas & Calculating Application Rates.***

Floriculture Appendix – DESE CDE Website <https://dese.mo.gov/college-career-readiness/career-education/agricultural-education/cde-handbook>

## Forms

See following: Training Reference 1, 2, 3 & Student Copy 1, 2 & 3.

**FLORICULTURE PLANT IDENTIFICATION LIST**

1	African Violet	<i>Saintpaulia ionantha</i> cv.
2	Ageratum	<i>Ageratum houstonianum</i>
3	Aglaonema	<i>Aglaonema commutatum</i>
4	Aluminum Plant	<i>Pilea cadierei</i>
5	Alyssum	<i>Lobularia maritima</i>
6	Amaryllis	<i>Hippeastrum hybrid</i> cv.
7	Annual Vinca	<i>Catharanthus roseus</i>
8	Artillery Plant	<i>Pilea microphylla</i>
9	Asiatic or Oriental Lily	<i>Lilium hybrid</i> cv.
10	Asparagus "Fern"	<i>Asparagus setaceus</i>
11	Astilbe	<i>Astilbe hybrid</i> cv.
12	Azalea	<i>Rhododendron hybrids</i>
13	Baby's Breath	<i>Gypsophila elegans</i> cv.
14	Barrel Cactus	<i>Echinocactus</i> cv.
15	Benjamin Fig	<i>Ficus benjamina</i> cv
16	Big Leaf Hydrangea	<i>Hydrangea macrophylla</i>
17	Bird of Paradise	<i>Strelitzia reginae</i>
18	Blushing Bromeliad	<i>Neoreglia carolinae</i> 'Tricolor'
19	Boston Fern	<i>Nephrolepis exaltata</i> cv.
20	Cactus	<i>Opuntia</i> cv.
21	Caladium	<i>Caladium x hortulanum</i> cv.
22	Calla Lily	<i>Zantedeschia hybrid</i> cv.
23	Campanula	<i>Campanula hybrid</i> cv.
24	Carnation	<i>Dianthus caryophyllus</i> cv.
25	China Aster	<i>Callistephus chinensis</i> cv.
26	Christmas Cactus	<i>Schlumbergera bridgesii</i>
27	Cineraria	<i>Senecio x hybridus</i> cv.
28	Clematis	<i>Clematis hybrid</i> cv.
29	Cockscomb	<i>Celosia argentea</i> cv.
30	Coleus	<i>Solenostemon scutellarioides</i>
31	Corn Plant	<i>Dracena fragrans</i>
32	Creeping fig	<i>Ficus pumila</i>
33	Croton	<i>Codiaeum variegatum pictum</i>
34	Crown of Thorns	<i>Euphorbia splendens</i>
35	Cymbidium Orchid	<i>Cymbidium</i> cv.
36	Daffodil or Narcissus	<i>Narcissus hybrid</i> cv.
37	Dahlia	<i>Dahlia hybrid</i> cv.
38	Daylily	<i>Hemerocallis</i> cv.
39	Dendrobium Orchid	<i>Dendrobium</i> cv.
40	Dusty Miller	<i>Senecio cineraria</i>

41	Dutch Iris	Iris x xiphium cv.
42	Emerald Ripple Peperomia	Peperomia caperata
43	English Ivy	Hedera helix cv.
44	Flamingo Plant	Anthurium x andraeanum cv.
45	Florist's Chrysanthemum	Chrysanthemum x morifolium
46	Florist's Cyclamen	Cyclamen x persicum cv.
47	Freesia	Freesia x hybrida
48	Garden Canna	Canna x generalis cv.
49	Garden Gladiolus	Gladiolus x hortulanus cv.
50	Gardenia	Gardenia jasminoides
51	Gerbera Daisy	Gerbera jamesonii
52	Globe Amaranths	Gomphrena hybrid cv.
53	Golden Pothos	Epipremnum aureum cv.
54	Heartleaf Philodendron	Philodendron scandens oxycardium
55	Hens and Chicks	Sempervivum hybrid cv.
56	Hosta	Hosta cv.
57	Hyacinth	Hyacinthus orientalis cv.
58	Hybrid Tea Rose	Rosa hybrid cv
59	Impatiens	Impatiens hybrid cv.
60	Ivy Geranium	Pelargonium peltatum cv.
61	Jade Plant	Crassula argentea
62	Kalanchoe	Kalanchoe x blossfeldiana cv.
63	Ladyslipper Orchid	Paphiopedilum hybrid cv.
64	Lantana	Lantana camara
65	Larkspur	Delphinium consolida cv.
66	Leatherleaf Fern	Rumohra adiantiformis
67	Lemongrass (herb)	Cymbopogon cv.
68	Liatris	Liatris spicata
69	Marguerite Daisy	Argyranthemum frutescens
70	Marigold	Tagetes species cv.
71	Million Bells	Calibrachoa hybrid cv.
72	Monte Cassino Aster	Aster pringlei
73	Moth Orchid	Phalaenopsis cv.
74	Nephthytis	Syngonium podophyllum
75	Nerve Plant	Fittonia verschaffeltii argyroneura
76	Norfolk Island Pine	Araucaria heterophylla
77	Octopus Plant	Schefflera arboricola
78	Ornamental Pepper Plant	Capsicum annuum
79	Ornamental Sweet Potato	Ipomoea batatas cv.
80	Pansy	Viola x witrockiana cv.

81	Parlor Palm	<i>Chamaedorea elegans</i>
82	Peace Lily	<i>Spathiphyllum</i>
83	Perennial Vinca (Periwinkle)	<i>Vinca minor</i>
84	Pentas	<i>Pentas hybrid cv.</i>
85	Peony	<i>Paeonia cv.</i>
86	Peruvian Lily	<i>Alstroemeria hybrid cv.</i>
87	Petunia	<i>Petunia x hybrida cv.</i>
88	Pin Cushion Protea	<i>Leucospermum hybrid cv.</i>
89	Poinsettia	<i>Euphorbia pulcherrima cv.</i>
90	Polka Dot Plant (Pink Splash)	<i>Hypoestes phyllostachya</i>
91	Portulaca	<i>Portulaca oleracea cv.</i>
92	Prayer Plant	<i>Maranta leuconeura</i>
93	Primrose	<i>Primula malacoides cv.</i>
94	"Purple Passion", Velvet Plant	<i>Gynura aurantiaca 'Sarmentosa'</i>
95	Ranunculus	<i>Ranunculus hybrid cv.</i>
96	Red Edge Dracaena	<i>Dracaena cincta</i>
97	Regal (Martha Washington) Geranium	<i>Pelargonium x domesticum</i>
98	Rubber Plant	<i>Ficus elastica cv</i>
99	Salvia	<i>Salvia splendens cv.</i>
100	Shasta Daisy	<i>Leucanthemum x superbum</i>
101	Shrimp Plant	<i>Justicia brandegeana</i>
102	Silver Dollar Eucalyptus	<i>Eucalyptus polyanthemos</i>
103	Silver Vase Bromeliad	<i>Aechmea fasciata cv.</i>
104	Snake Plant	<i>Sansevieria trifasciata cv.</i>
105	Snapdragon	<i>Antirrhinum majus cv.</i>
106	Solidago	<i>Solidago hybrid cv</i>
107	Spider Plant	<i>Chlorophytum comosum cv.</i>
108	Split Leaf Philodendron	<i>Monstera deliciosa</i>
109	Spotted Dumbcane	<i>Dieffenbachia</i>
110	Sprengeri Fern	<i>Asparagus densiflorus</i>
111	Spring Heather	<i>Erica carnea cv.</i>
112	Statice	<i>Limonium sinuatum</i>
113	Stephanotis	<i>Stephanotis floribunda</i>
114	Stock	<i>Matthiola incana cv.</i>
115	Strawberry Begonia	<i>Saxifraga stolonifera</i>
116	Sunflower	<i>Helianthus annuus</i>
117	Swedish Ivy	<i>Plectranthus australis</i>
118	Thanksgiving Cactus, Crab Cactus	<i>Schlumbergera truncata</i>
119	Trumpet (Easter) Lily	<i>Lilium longiflorum</i>

120	Tuberous Begonia	<i>Begonia x tuberhybrida</i> cv.
121	Tulip	<i>Tulipa</i> cv.
122	Variegated Peperomia	<i>Peperomia obtusifolia</i> 'Variegata'
123	Verbena	<i>Verbena</i> hybrid cv.
124	Wandering Jew	<i>Tradescantia zebrina</i>
125	Watermelon Peperomia	<i>Peperomia sandersii</i>
126	Wax Begonia	<i>Begonia x semperflorens –cultorum</i>
127	Wax Plant	<i>Hoya carnosa</i>
128	Waxflower	<i>Chamelaucium uncinatum</i>
129	Zebra Plant	<i>Aphelandra squarrosa</i> cv.
130	Zinnia	<i>Zinnia</i> cv.
131	Zonal Geranium	<i>Pelargonium x hortorum</i> cv.

**IDENTIFYING AND CONTROLLING PLANT DISORDERS PRACTICUM**

This practicum is aimed at developing in students the ability to recognize and recommend remedial measures for various types of plant disorders and/or pests. Included among these are environmental, nutritional, pest-related, and disease-related disorders.

Five different stations depicting plant disorders will be included. The participant must identify the item and its classification (disease, insect/pest/mites, nutritional/environmental). The participant then must determine the chemical and/or cultural controls for the disorder. Each participant will identify 5 specimens valued at 10 points each. Identifying the disorder correctly will be worth five points.

Pest and disorder items may be presented as an intact specimen, photograph or preserved specimen (herbarium sheet, insect mount, etc.). Each specimen will be designated by a station number. No specimens or items may be touched or handled in any way. Refer to the Disorder Practicum Scorecard (Form 65) for additional details.

<b>Classification</b>	<b>Identification</b>	<b>Chemical Control</b>	<b>Cultural Control</b>
Disease	Black Leaf Spot	Fungicide	None
	Botrytis-Grey Mold	Fungicide	Reduce Relative Humidity
	Damping Off	None	None
	Down Mildew	Fungicide	Reduce Relative Humidity
	Powdery Mildew	Fungicide	Reduce Relative Humidity
	Root Rot	Fungicide	Correct/Adjust Watering
	Rust	Fungicide	None
Insects / Pests/ Mites	Stem Rot	Fungicide	Correct/Adjust Watering
	Aphids	Insecticide	Parasitic Wasps
	Fungus Gnats	Insecticide	Nematodes
	Leaf Miner	Insecticide	Predatory Mites
	Leafhopper	Insecticide	Ladybird Beetles or Parasitic Wasps
	Mealybugs	Insecticide	Parasitic Wasps
	Scale	Insecticide	Ladybird Beetles
Nutritional / Environmental	Snails/Slugs	Mulluscicide	None
	Spider Mites	Miticide	Predatory Mites
	Thrips	Insecticide	Parasitic Wasps
	Whiteflies	Insecticide	Ladybird Beetles
	Ethylene Damage	None	Reduce Relative Humidity
	Insufficient Watering	None	Correct / Adjust Watering
	Iron Deficiency	None	Apply a fertilizer containing iron
	Nitrogen Deficiency	None	Apply a fertilizer containing N
	Phosphorus Deficiency	None	Apply a fertilizer containing P

**FLORICULTURE IDENTIFICATION SCORECARD****Training Reference 3**

Name: \_\_\_\_\_ Contestant No: \_\_\_\_\_

School: \_\_\_\_\_ School No: \_\_\_\_\_

**Plant Number**

- |           |           |           |
|-----------|-----------|-----------|
| 1. _____  | 21. _____ | 41. _____ |
| 2. _____  | 22. _____ | 42. _____ |
| 3. _____  | 23. _____ | 43. _____ |
| 4. _____  | 24. _____ | 44. _____ |
| 5. _____  | 25. _____ | 45. _____ |
| 6. _____  | 26. _____ | 46. _____ |
| 7. _____  | 27. _____ | 47. _____ |
| 8. _____  | 28. _____ | 48. _____ |
| 9. _____  | 29. _____ | 49. _____ |
| 10. _____ | 30. _____ | 50. _____ |
| 11. _____ | 31. _____ | 51. _____ |
| 12. _____ | 32. _____ | 52. _____ |
| 13. _____ | 33. _____ | 53. _____ |
| 14. _____ | 34. _____ | 54. _____ |
| 15. _____ | 35. _____ | 55. _____ |
| 16. _____ | 36. _____ | 56. _____ |
| 17. _____ | 37. _____ | 57. _____ |
| 18. _____ | 38. _____ | 58. _____ |
| 19. _____ | 39. _____ | 59. _____ |
| 20. _____ | 40. _____ | 60. _____ |

# FLORICULTURE IDENTIFICATION LIST

**Student Copy 1**

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4	Aluminum Plant	Pilea cadierei	69	Marguerite Daisy	Argyranthemum frutescens
5	Alyssum	Lobularia maritima	70	Marigold	Tagetes species cv.
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7	Annual Vinca	Catharanthus roseus	72	Monte Cassino Aster	Aster pringlei
8	Artillery Plant	Pilea microphylla	73	Moth Orchid	Phalaenopsis cv.
9	Asiatic or Oriental Lily	Lilium hybrid cv.	74	Nephthytis	Syngonium podophyllum
10	Asparagus "Fern"	Asparagus setaceus	75	Nerve Plant	Fittonia verschaffeltii argyreoneura
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32	Creeping fig	Ficus pumila	97	Regal (Martha Washington) Geranium	Pelargonium x domesticum
33	Croton	Codiaeum variegatum pictum	98	Rubber Plant	Ficus elastica cv
34	Crown of Thorns	Euphorbia splendens	99	Salvia	Salvia splendens cv.
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55	Hens and Chicks	Sempervivum hybrid cv.	120	Tuberous Begonia	Begonia x tuberhybrida cv.
56	Hosta	Hosta cv.	121	Tulip	Tulipa cv.
57	Hyacinth	Hyacinthus orientalis cv.	122	Variegated Peperomia	Peperomia obtusifolia 'Variegata'
58	Hybrid Tea Rose	Rosa hybrid cv	123	Verbena	Verbena hybrid cv.
59	Impatiens	Impatiens hybrid cv.	124	Wandering Jew	Tradescantia zebrine
60	Ivy Geranium	Pelargonium peltatum cv.	125	Watermelon Peperomia	Peperomia sandersii
61	Jade Plant	Crassula argentea	126	Wax Begonia	Begonia x semperflorens –cultorum
62	Kalanchoe	Kalanchoe x blossfeldiana cv.	127	Wax Plant	Hoya carnosa
63	Ladyslipper Orchid	Paphiopedilum hybrid cv.	128	Waxflower	Chamaelaelium uncinatum
64	Lantana	Lantana camara	129	Zebra Plant	Aphelandra squarrosa cv.
65	Larkspur	Delphinium consolida cv.	130	Zinnia	Zinnia cv.
			131	Zonal Geranium	Pelargonium x hortorum cv.

**FLORICULTURE/GREENHOUSE ITEMS**

Name: \_\_\_\_\_ Contestant No: \_\_\_\_\_

School: \_\_\_\_\_ School No. \_\_\_\_\_

- |           |                          |                          |                         |
|-----------|--------------------------|--------------------------|-------------------------|
| 1. _____  | 00. # 3 Ribbon           | 36. Floral knife         | 67. Propagation Mat     |
| 2. _____  | 01. # 9 Ribbon           | 37. Floral preservative  | 68. Propagation trays   |
| 3. _____  | 02. #40 Ribbon           | 38. Floral stem tape     | 69. PVC pipe            |
| 4. _____  | 03. #100 Ribbon          | 39. Fogger               | 70. PVC pipe cutter     |
| 5. _____  | 04. 18 Gauge floral wire | 40. Gas mask             | 71. Resin-coated        |
| 6. _____  | 05. 28 Gauge floral wire | 41. Glass vase           | fertilizer              |
| 7. _____  | 06. 606 Cell Pack        | 42. Glue gun             | 72. Respirator          |
| 8. _____  | 07. 804 Cell Pack        | 43. Glue sticks          | 73. Ribbons shears      |
| 9. _____  | 08. 806 Cell Pack        | 44. Goggles              | 74. Rice hulls          |
| 10. _____ | 09. 1204 Cell Pack       | 45. Granular fertilizer  | 75. Rockwool            |
| 11. _____ | 10. 1206 Cell Pack       | 46. Greenhouse           | propagation cubes       |
| 12. _____ | 11. 1801 Cell Pack       | thermostat               | 76. Rose and stem       |
| 13. _____ | 12. 1803 Cell Pack       | 47. Hanging basket       | flower stripper         |
| 14. _____ | 13. Anvil-&Blade Pruner  | 48. Hearing protection   | 77. Shade fabric        |
| 15. _____ | 14. Backflow preventer   | 49. Hook-&Blade          | 78. Sharpening stone    |
| 16. _____ | 15. Bouquet sleeve       | pruners (bypass          | 79. Sheet moss          |
| 17. _____ | 16. Bulb planter         | pruners)                 | 80. Siphon injector     |
| 18. _____ | 17. Cardette             | 50. Hose punch           | 81. Soil moisture meter |
| 19. _____ | 18. Ceramic container    | 51. Hose repair coupling | 82. Solenoid valve      |
| 20. _____ | 19. Chemical resistant   | 52. Hose-end repair      | 83. Spanish moss        |
| 21. _____ | gloves                   | fitting                  | 84. Spaghetti tubing    |
| 22. _____ | 20. Chenille stem        | 53. Hose-end sprayer     | (1/4" diameter or       |
| 23. _____ | 21. Coconut COIR         | 54. Hose-end washer      | less)                   |
| 24. _____ | 22. Compressed air       | 55. Impulse sprinkler    | 85. Sphagnum moss       |
| 25. _____ | sprayer                  | 56. Irrigation tape      | 86. Spray suit          |
|           | 23. Corsage box          | 57. Irrigation timer     | 87. Square point (flat) |
|           | 24. Corsage pins         | 58. Mist Nozzle (mist    | shovel                  |
|           | 25. Corsage snips        | bed)                     | 88. Styrofoam           |
|           | 26. Drip emitter,        | 59. Oscillating          | 89. Surestik cling      |
|           | irrigation               | sprinkler                | 90. Tulle               |
|           | 27. Dry foam             | 60. Peat moss            | 91. Vermiculite         |
|           | 28. Dust mask            | 61. Peat pots            | 92. Water breaker       |
|           | 29. Duster               | 62. Pest strips          | 93. Water picks         |
|           | 30. Ellepot propagation  | 63. pH testing meter     | 94. Water soluble       |
|           | cubes                    | 64. Polyethylene film    | fertilizer              |
|           | 31. Enclosure card       | 65. Polyethylene pipe    | 95. Water tubes         |
|           | 32. Fern greening pins   | 66. Pot covers           | 96. Waterproof          |
|           | 33. Fertilizer injectors |                          | container tape          |
|           | 34. Floral adhesive      |                          | 97. Wire cutter         |
|           | 35. Floral foam          |                          | 98. Wooden pick         |
|           |                          |                          | 99. Wrist corsage       |
|           |                          |                          | holder                  |

**DISORDER PRACTICUM SCORECARD**

Name: \_\_\_\_\_ Contestant No: \_\_\_\_\_

School: \_\_\_\_\_ School No. \_\_\_\_\_

		Member Answer	Possible Points	Member Score
1.	Classification #:		2	
	Identification #:		4	
	Chemical Control #:		2	
	Cultural/ Biological Control #:		2	
2.	Classification #:		2	
	Identification #:		4	
	Chemical Control #:		2	
	Cultural/ Biological Control #:		2	
3.	Classification #:		2	
	Identification #:		4	
	Chemical Control #:		2	
	Cultural/ Biological Control #:		2	
4.	Classification #:		2	
	Identification #:		4	
	Chemical Control #:		2	
	Cultural/ Biological Control #:		2	
5.	Classification #:		2	
	Identification #:		4	
	Chemical Control #:		2	
	Cultural/ Biological Control #:		2	

**CLASSIFICATION:**

01. Diseases  
 02. Insects / Pest / Mites  
 03. Nutritional / Environmental

**IDENTIFICATION:**

20. Aphids  
 21. Black Leaf Spot  
 22. Botrytis – Grey Mold  
 23. Damping-off  
 24. Downy Mildew  
 25. Ethylene Damage  
 26. Fungus Gnats  
 27. Insufficient Watering  
 28. Iron Deficiency  
 29. Leaf Miner  
 30. Leafhopper  
 31. Mealybugs  
 32. Nitrogen Deficiency  
 33. Phosphorus Deficiency  
 34. Powdery Mildew  
 35. Root Rot  
 36. Rust  
 37. Scale  
 38. Snails/Slugs  
 39. Spider Mites  
 40. Stem Rot  
 41. Thrips  
 42. whiteflies

**CHEMICAL CONTROL:**

1. Fungicide  
 2. Insecticide  
 3. Miticide  
 4. Mulluscicide  
 5. No Treatment Listed

**CULTURAL CONTROL:**

1. Apply a fertilizer containing iron  
 2. Apply a fertilizer high in nitrogen  
 3. Apply a fertilizer high in phosphorous  
 4. Correct / Adjust Temperature  
 5. Correct / Adjust Watering  
 6. Ladybird Beetles  
 7. Nematodes  
 8. Parasitic Wasps

9. Predatory Mites  
 10. Reduce Relative Humidity  
 11. No Treatment Listed